IMPERIAL
DEPARTMENT OF AGRICULTURE
FOR THE WEST INDIES.

INTERIM REPORT

ON THE

AGRICULTURAL DEPARTMENT,

GRENADA,

1913-14.

BARBADOS:
ISSUED BY THE IMPERIAL COMMISSIONER OF AGRICULTURE
FOR THE WEST INDIES.

1914.

[Price Sixpence.]

REPORTS

ON THE

BOTANIC STATION, ECONOMIC PLOTS, AND AGRICULTURAL EDUCATION, GRENADA.

Annual Reports on Certain Economic Experiments conducted in connexion with the Botanic Station, 1900-2.

Annual Reports on the Botanic Station for the years 1901 and 1902.

Annual Reports on the Botanic Station, Economic Experiments, and Agricultural Education for the years 1902-3 to 1913-14.

SUGAR-CANE EXPERIMENTS.

IN BARBADOS.

Report of the Agricultural Work for 1900 :—
Manurial Experiments and Experiments with Varieties of Sugar-cane.

Report of the Agricultural Work for the seasons 1899-1901 to 1908-10.
Parts I and II ; Manurial Experiments. Part III ; Varieties of Sugar-cane.

IN THE LEEWARD ISLANDS.

Report on Experiments conducted with Sugar-canes in the season 1899-1900.

Reports on Experiments conducted with Sugar-canes in the seasons 1900-1 to 1909-10.

Part I; Varieties of Sugar-cane. Part II; Manurial Experiments.

Sugar-cane Experiments in the Leeward Islands, 1911-12 and 1912-13.

Parts I and II published together in Royal 8vo.

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General Administration Report on the Agricultural Department, Grenada, 1913-14.

In the exceptional circumstances arising from the recent staff changes in the Agricultural Department, Grenada, this Report has been compiled at the Head Office of the Imperial Department with a view to preserving continuity.

WORK IN THE BOTANIC GARDENS.

With the commencement of the financial year, a considerable amount of new work was set in hand at the Gardens. The roads and paths were repaired and overlaid with fresh material; a new road to open up the Spout Annex has been laid out and proceeded with, and certain changes made to get rid of the system of open drains, which marred the appearance of some of the lawns.

AGRICULTURAL EXPERIMENTS.

The experiments now being conducted by the Department are as follows :—

	Morne Rouge.	Westerhall.	Botanic Gardens.
Coco-nuts	½ acre	1 acre	—
Corn (selection) ...	4 types	3 types	2 types
Sugar-cane	1 acre	¼ acre	—
Cotton	½ acre	—	—
Limes	¼ acre	¼ acre	—
Guavas	1 acre	—	—
Ground nuts	—	¼ acre	
Soy Beans	—	—	2 types
Peppers	⅛ acre	—	—
Sesame (jidgeree) ...	—	¼ acre	—
Broom corn	—	¼ acre	—
Sweet potatoes (seedling)...	—	—	6 types

Besides these, the four large cacao manurial experiment plots at Mt. Horne Dougaldston, Diamond and Grand Bacolet estates have been continued, as have also the cacao-spraying trials at Diamond and St. David's (Mr. J. B. Wells). At the Grand Etang Forest Reserve are two plots of Castilloa, and one each of Hevea, Jippi-jappa and Camphor.

Cacao.

MANURIAL EXPERIMENTS.

The results of the experiments at Mount Horne and Grand Bacolet are given below: figures are not yet available for the other two plots (Dougaldston and Diamond).

Manures used per acre.	Cured cacao per acre, in lb.	
	Grand Bacolet.	Mt. Horne.
1. No manure	1,271	1,994
2. Pen manure	2,238	1,778
3. Sulphate of ammonia 2 cwt. Basic slag 4 cwt.	2,120	1,606
4. Sulphate of ammonia 2 cwt. Sulphate of potash 1½ cwt.	2,101	1,116
5. Sulphate of ammonia 2 cwt Basic slag 2 cwt. Sulphate of potash 1½ cwt.	1,962	1,001
6. Dried blood 4 cwt. Basic slag 4 cwt. Sulphate of potash 1½ cwt.	1,231	1,116
7. Sheep manure 32 cwt.	1,426	907
8. Mulched with grass and leaves	1,485	1,299

It is to be remarked that the no manure plot at Mt. Horne has borne remarkably well compared with the others. As this is the first complete year's working of those experiments, this result is no doubt due to an initial irregularities in the trees or the soil which may in the case of the latter be removed in future years; in any event it will be possible to observe the relative development of the several plots concerned.

Indian Corn.

The following types of corn have been under trial in 1913: Nos. 4G, 4H, 9G, 4B, 20, 15, and 18. All of these excepting Nos. 18 and 20 are native types, the former being an importation from the United States, and the latter from Guam Island in the Pacific.

Nos. 18 and 15 were reaped in September at the Botanic Gardens and necessary weights and measurements made. No. 18 yielded 122 ears from 150 holes, and No. 15 gave 74 ears from 37 holes. The average weight per ear of No. 18 was 3·8 oz., and of No. 15 5·6 oz.; and from the former were obtained 10 select ears, from the latter 12. These ears were classed as follows:—

Rows of grain per ear.	No. of ears selected.	
	No. 18.	No. 15.
8	9	—
10	1	—
12	—	2
14	—	8
16	—	2

In yield, size of ear, and number of rows of grain, the native type (No. 15) has proved superior to the imported type, but the latter possesses so large a grain that it is worthy of further trial: 100 selected grains of No. 18 weighed from 43 to 58 grammes, while those of No. 15 weighed only 23 to 35 grammes.

Green Dressing.

SOY BEANS.

It will be remembered that trials were made with this crop in 1910 on several estates in the island with little success, as the plants grew weedily and gave little or no seed. In February 1913, a bed at the Botanic Gardens was made up with a mixture of sand and soil imported from a flourishing soy-bean field, and imported seed was planted therein. The beans made fair growth and yielded 10 oz. of seed on 55 square feet (=495 lb. seed per acre), the roots being well covered with bacterial nodules.

In June 1913, two plots, each of 240 square feet, were forked, the soil from the sand-bed well mixed with the surface soil, and on one was planted imported seed, while on the other the seed reaped from the sand-bed was used. The yields of the two plots were as follows :—

Imported seed, 25 holes grew yielding 3 oz. shelled seed.
Native (1st generation), 68 holes grew yielding 1·76 lb. shelled seed.

These results, on the whole, appear to indicate that it is possible to naturalize the soy-bean in Grenada, if precautions are taken to inoculate the field with soil from a thriving field, and the trial is being repeated. The bean is in fair demand in foreign markets as a source of oil.

Other Experiments.

There are no figures of results at hand for the other experiments. The limes at Morne Rouge are making good growth and the mulched section has fruited this season for the first time, being some months ahead of the unmulched section. This plot is of interest in view of the increasing cultivation of this crop in the island.

PLANT PESTS AND DISEASES.

Cacao.

Some trouble has been experienced with the die-back or 'stagshorn' disease of cacao branches, attributed to the fungus best known as *Diplodia cacaoicola*. The dying out of the topmost twigs of the trees is more or less common wherever cacao is grown, and is by no means always due to this disease. Exposure to wind, and disease or other factors affecting the roots often produce such an effect. Well-marked cases of the progressive death of twigs and branches do occur however, which appear to be definitely due to the action of the fungus, and in which a spread of the infection to surrounding trees seems traceable. Such cases should be promptly dealt with by cutting back, in which operation the all-important point is to cut well below the diseased portion of the branch preferably at its base. The cuts should be painted and the dead wood burned. Some extra attention should also be given to the condition and fertility of the soil in which the trees are growing. Particular care should be taken not to confuse root disease with this trouble.

A leaflet was published by the Department in December calling the attention of planters to the gradual increase of black blight on cacao, and stating that pumps and spraying materials were available for loan. The insect in this case attended with black blight is a mealy-bug, and the increase of black blight on cacao cannot be in any way the outcome of black blight on mangoes and other trees: in the case of these entirely different species of insects are responsible for the trouble. As natural parasites of the mealy-bug are not known in Grenada, spraying is the most useful means of control which can for the present be recommended.

There appears to have been a marked increase of fungous pod diseases of cacao during this season. This is presumably due to some seasonal peculiarity.

The abandonment by one or two planters of the practice of burying the pods cannot be regarded as a sound measure. It is quite possible that, as has been suggested in some quarters, the buried pods may serve to nourish the fungus which causes root disease if it is present on the spot, though no authenticated case

of such an action has yet been recorded. The absence of ill-effects on so many estates where burial of pods is practised warrants the general continuation of the custom, in view of its definite advantages. Where ill-effects are believed to occur, the plan of burying the pods at a distance from the cacao cultivation, or better, of composting them in special pits, should be adopted in preference to leaving them in heaps or strewn about under the trees.

COTTON LEGISLATION.

The draft Bill of an Ordinance entitled An Ordinance to Provide for the Destruction of Old Cotton Plants, was published in the Grenada *Government Gazette*, January 3, 1914. This Ordinance requires that the holders of land shall destroy by fire, in the case of Sea Island cotton, the old plants, before the beginning of the next cotton season, and in the case of any variety of cotton other than Sea Island, before the end of the season next after that in which such cotton was planted. It will be well here to explain that the Grenada cotton season means the period between the last day of April in any year, and the first day of May in the succeeding year. The Ordinance, however, makes it lawful for any officer, duly authorized, to enter the cotton fields and destroy the plants where this has not been done, and to recover the cost of such destruction from the occupier of the land. Any person guilty of an offence against the Ordinance will be liable, on summary conviction, to a fine not exceeding £10. This Ordinance is made applicable to the island of Carriacou, Petit Martinique, and the Grenadines lying between Carriacou on the north, and the island of Grenada on the south; power is given the Governor-in-Council to extend from time to time the operation of the Ordinance to other parts of the colony.

WORK IN THE LABORATORY.

Analysis of Grenada Soils.

Mention was made in the last report of the Department, issued at the end of 1912-13, of an important line of work that was being carried on in the Government Laboratory, which consisted of the survey of soils in the different districts of the colony. An interesting preliminary report on this work was received early in January 1914 from the Superintendent of Agriculture (Mr. G. G. Auchinleck, B.Sc.), from which the following points of interest are abstracted.

Samples were taken in seventeen different districts of the island and examined physically. As regards the soil of Good Hope estate, three interesting sections were found to lie on the boundary line between the extensive ash and gravel deposits, which form the whole coastal belt of the island and central red larval soils. A point of interest in connexion with the true red soils of this district is that here and there occur numerous spherical particles, which, on examination, appear to be composed of oxides of alumina and iron, with probably an admixture of organic matter. In character they seem to resemble bog-iron-ore, and they probably point to the necessity of drainage, and to the existence of an excess of iron. On such soils, an application of superphosphate would probably be wasted, unless preceded by large doses of lime.

An interesting type of soil found in Grenada is the black ash soil, which is for the most part composed of fine, compacted volcanic ash, and is by reputation exceedingly difficult to work. Mr. Auchinleck considers that this bad reputation has been enhanced by the severe annual droughts experienced where these soils occur, and is not due primarily to any abnormality in their physical composition.

There have been during the past three years frequent applications to the Department for the analysis of soils, manures and other materials, applications which in many cases could not be granted on account of the diversified work of the Department and the lack of adequate staff. The natural development of the Laboratory will no doubt make it in the near future the centre for Government analytical work, as is evidenced by the following list of samples received during the past three years: Sugars, rums, rum-washes, molasses, drinking waters, soils, manures, lime-juices, milks, butters, rubber, suspected base coins, and substances

suspected of containing poisons. Work of this sort would need the undivided attention of at least one man, and it does not appear advisable or feasible that it be undertaken without adequate increase of the staff of the Department.

MISCELLANEOUS.

During the October-December quarter about 70,000 cane plants were ordered by various planters through the Department, and in the same period 2,000 growing coco-nut plants were sold by the Department.

Two changes proposed in the Agricultural and Commercial Society are likely to alter, with considerable benefit, the relations between the Department and the planting community. The first of these is the provision for the formation of Branch Societies in the out-parishes, and the second a proposal for recognizing the Junior Assistant of the Department as Assistant Secretary of the Society.

In May a shipment was made by the Agricultural and Commercial Society of exhibits for the Royal Agricultural Society's Show at Bristol, in connexion with which shipment help was given by the Department.

By order of the Government, the majority of the Berkshire-Poland-China pigs have been sent to the country districts to be kept on service by planters: at present there is a pair at Tuileries, a pair at Mt. Rodney, and arrangements are now complete for sending a sow to Waltham and one to Mt. Pleasant. The mule-footed boar will also be sent out shortly.

OFFICIAL VISITS.

The following Officers visited the Colony during December 1914: Mr. P. H. Lamb, Director of Agriculture, Northern Nigeria; Mr. D. W. Scotland, Assistant Director of Agriculture, Sierra Leone; Mr. R. Gill, Assistant Agricultural Superintendent, Southern Nigeria. The two last mentioned remained five days and saw a good deal of the cacao and nutmeg cultivation of the island.

STAFF CHANGES.

During the year the Superintendent of Agriculture (Mr. G. G. Auchinleck, B.Sc.) was promoted to the post of Assistant Director and Chemist, of the Department of Agriculture, Mauritius, and Mr. Geo. F. Branch resigned his post as Agricultural Instructor.

Annual Report on Grenada Land Settlements and Forest Reserves, 1913-14.

LAND SETTLEMENTS.

The Grenada Land Settlement Scheme continues to make good progress. During the period under review, the blocks of land at Calivigny, Morne Rouge North, and Morne Rouge South, which were added to the scheme during the preceding year, were offered for settlement.

These new blocks were sub-divided into thirty-eight lots, and by reference to the following table it will be observed what progress in sales has been effected :—

SALE OF ALLOTMENTS.

Estate.	Lots unsold at 1. 4. 13.	Lots sold during 1913-14	Lots unsold at 31. 3. 14.	Remarks.
Morne Rouge North ...	10	6	4	1 lot reserved
Morne Rouge South ...	7	6	1	1 „ „
Westerhall ...	39	33	6	
Calivigny ...	23	10	13	1 „ „
Totals ...	79	55	24	

A further addition to the scheme has been made by the purchase of the St. Cyr mountain estate, situate in the parish of St. Andrew, and in one of the big provision-growing districts.

The estate contains about 300 acres, of which about 80 are planted in full-bearing cocao. The remaining acreage is uncultivated and covered with virgin forest and heavy secondary growth. The whole estate is very well watered, and the soil seems excellent for the production of all kinds of ground provisions.

The settlement of this estate will present a number of difficulties which have not presented themselves in the past. These will be due, in a great measure, to a large part of the estate being cultivated, and the suitability of the uncultivated land for cocao cultivation.

PRIZE HOLDING SCHEME.

Owing to the bad seasons experienced the crops on the settlements were so backward that it was found inadvisable to hold the competitions this year.

This was most regrettable because the settlers took a keen interest in those of the preceding year.

It is however hoped to continue them during the coming year, if the crop comes up to competition standard.

Settlement Roads.

The development of the Westerhall Settlement roads was completed during this year. There is now an excellent system of roads, about 5 miles in all, throughout the estate, and it is now possible to ride and drive over most parts of it.

About 1¼ miles of road, 10 feet wide, were constructed on the Calivigny Settlement. These roads are connected with the Westerhall system and are constructed on the same principle as the last named, i. e., each allotment has at least one boundary abutting on a road which leads to one of the main arteries of the island.

About 1¼ miles of road were also constructed at the Morne Rouge Settlements to give access to the lots offered for sale during the year. These roads are constructed to permit of the use of carts.

Surface repairs were effected to all the roads at Morne Rouge Settlements, and the sides and drains cutlassed and cleaned. Similar work was done on some of the Westerhall roads.

Water-Supply.

No improvement has been made in regard to the water-supply on the settlements.

Notes on Crops Grown.

COTTON. No progress has been made in the cultivation of this crop during the year under review.

SUGAR-CANE. The areas under this crop were further extended during this year. B. 147 still continues to be a favourite at the Morne Rouge Settlements. It is a good drought-resisting type.

At the Westerhall estate, plants were very scarce, otherwise far larger areas would have been put in.

MAIZE. This crop was again largely grown on the settlements. Owing to drought, the first crop did not come up to expectations, but heavy rains having fallen from October to January, a good second crop was obtained. The total of both crops on the two Settlements aggregated nearly 800 barrels of unshelled corn.

COCO-NUTS. Numbers of coco-nut plants were put in at both settlements, especially Westerhall, during this year. On the sandy lands at Morne Rouge, which seem ideal for this plant, there are several settlers with over 100 plants each.

GROUND PROVISIONS. These consisted chiefly of sweet potatoes, yams, manioc, and peas. The sweet potato crop this year was below the average, owing to drought. Large quantities of manioc were grown at the Westerhall Settlement. Fair quantities of yams of different varieties, and peas of all sorts were reaped on both estates.

LIMES. After many efforts, a few of the settlers are at last being induced to make trial plantings of limes on their holdings. The trees are being planted as hedges along their boundaries, and along tracks. In this manner the planting of annual crops will not be interfered with when the trees are established and bearing.

General Methods of Cultivation.

Slight improvement in methods of cultivation is at last noticeable. There is a growing tendency to drain, and the use of fire is far less frequent. The settlers are being at last made to realize the value of mulching and the conservation of humus.

At Westerhall several of the settlers are now keeping animals at stake on their holdings, and use the manure thus produced on their cane fields.

Government Aid.

Advice by Department Officers was freely given to all settlers whenever sought.

Seeds and plants from all the crops grown on the experiment plot were distributed free of charge to settlers whenever they were asked for. In this connexion, 2,000 cane plants, 3 bushels corn seed, about ½ sack peanuts, cowpeas, sesame, and melon seed were distributed.

Plants grown at the Botanic Station were also, in some cases, distributed free of charge, and in other cases at cost price. About 200 coco-nut plants were distributed in this manner.

A small store-room was erected at the Morne Rouge plot for the storage and distribution of plants.

Complaints were made by Morne Rouge settlers in regard to the working of the Sugar Factory there; these complaints were dealt with. A few repairs to the factory were effected.

Improvements by Settlers.

During the period under review a small sugar factory for the manufacture of crude muscovado sugar was erected by one of the settlers at the Morne Rouge South Settlement; this proved of much benefit to the settlers there.

Another settler at Westerhall also erected a similar kind of factory. This also was considerably used by the settlers on one section of that settlement.

A third settler has constructed a building at Westerhall for the installation of a small sugar-making plant, and two others who owned mills on hired sites elsewhere have removed them to their lots, but have not yet erected them.

Several well-constructed wooden cottages have been erected by settlers on their lots.

EXPERIMENT PLOTS.

Morne Rouge.

MAIZE. On this plot a ¼-acre of maize was planted from selected seed, which yielded 20 bushels of corn in cob. These were selected, and the best ears retained for the continuation of experiments during the coming year.

SUGAR-CANE. The following ten varieties: B. 147, B. 3922, B. 6450, B. 3696, B. 4596, B. 1753, B. 254, D. 625, D. 116, and Sealy Seedling, were tried this year to ascertain the best drought-resisting types.

The weather being dry, and the rainfall exceedingly low for the first four months after planting, very doubtful results were obtained. The experiment was, however, useful in supplying several thousands of plants of good varieties of sugar-canes, some of which were distributed to settlers and the others to a neighbouring planter.

LIMES. The half of the lime plot which has been kept under a heavy mulch from the time of planting in August 1911, commenced fruiting during August; about five dozen ripe fruit were collected from eight trees.

This plot amply demonstrates the value of mulch for citrus cultivation on the dry lands of the island with low rainfall, as the mulched trees are at least twice the size of those on the adjoining unmulched plot, and on which not one tree has even yet produced blossoms.

COCO-NUTS. These continue to show growth.

COWPEAS. As in former years cowpeas were grown between the crops of corn and pigeon peas to form hedges between the different plots. About 10 bushels of peas of all sorts were raped, some of which were sold and others distributed for plants.

WESTERHALL.

MAIZE. A ½-acre of maize was grown on this plot from selected seed, and produced 10 barrels of unshelled corn. This was treated in a similar manner to the reaping from Morne Rouge.

PEANUTS (GROUND NUTS). An ⅛-acre was planted with peanuts from seed obtained from the Botanic Station (variety unknown). Contrary to expectations, the soil being rather heavy, a fairly good yield of 250 lb. was obtained. Some of these were sold locally, others distributed to settlers for plants, and the remainder given to the Exhibition Committee of the Agricultural and Commercial Society to be forwarded to the Canadian Exhibition.

SEASAME (JIDJIREE). A ¼-acre was planted with this crop and yielded fairly good results. Owing to lack of rain, shortly after planting, only about two-thirds of the plants survived. These however grew luxuriantly and fruited heavily. The yield of about 2 bushels of seed fell considerably short of expectations. The low yield was due (1) to the ravages of mice and grass bugs in the field, and (2) loss of seed by the crude manner in which they are dried and threshed from the pods.

MANIOC. A ¼-acre of local mixed varieties of manioc was tried this year and cultivated without the use of manures. The yield obtained (¾ ton of tubers) was fairly satisfactory.

COCO-NUTS. The coco-nuts on this plot continue to grow very satisfactorily. During the early part of the year the plot was forked and limed, and subsequently treated with sheep manure and sulphate of ammonia. The effect of this treatment is very noticeable.

EFFECTS OF SETTLEMENTS IN DISTRICTS WHERE SITUATED.

MORNE ROUGE.

This settlement affects the Grand Anse and Calliste districts particularly, as most of the allottees thereon reside in the above-mentioned districts. Previous to the establishment of the settlement, the residents of these districts subsisted chiefly by fishing, coal burning, and stock raising. Although of a hardy type, they were very thriftless and did no regular work.

Since the establishment of the settlement they have become far more diligent, and are gradually taking up agriculture in preference to their former precarious livelihood.

WESTERHALL.

This settlement affects the surrounding districts of St. Paul's, Hope Vale, Perdmontemps, Laura, and La Femme. The people in these districts were all agricultural labourers, most of whom formerly rented gardens and raised stock on these lands. They were formerly rather lawless; but with the establishment of the settlement, and on being made to realize their responsibilities as landowners, they have improved considerably. Praedial larceny, which was formerly the rule in the district, is now an exception.

Improved methods of cultivation are also very apparent, the settlers having realized that the land is now their own, and the better it is tilled and cultivated, the more fertile it will become; and incidentally, they themselves will ultimately become more prosperous.

The fear that the labour supply on the adjacent estates would be adversely affected has proved to be groundless. On the contrary, it seems to have increased the supply. Several of the men who formerly did no regular work have now become settlers, and offer their services to the estates when their time is not urgently needed on their holdings.

One noticeable feature since the establishment of the settlements, has been the increase of ground provisions in St. George's, almost throughout the year. It will be readily realized that the planting of some 200 acres with these crops is bound to affect the supply, and increase the spending capacity of the growers.

APPROXIMATE AREAS UNDER DIFFERENT CROPS AT MARCH 31, 1914.

Crops.	Morne Rouge North.	Morne Rouge South.	Westerhall.	Calivigny.	Total.
Sugar-cane ...	30 acres	35 acres	60 acres	3 acres	128 acres
Maize	40 „	45 „	80 „	...	165 „
Coco-nuts ...	480 trees	100 trees	100 trees	...	680 trees
Fruit trees ...	50 „	...	80 „	...	130 „

CLASS OF PERSONS PURCHASING ALLOTMENTS, 1913-14.

Occupations.	Morne Rouge North.	Morne Rouge South.	Westerhall.	Calivigny.	Total.
Agricultural labourers:					
Male	6	5	21	6	38
Female	...	1	7	2	10
Carpenters	...	...	2	1	3
Masons	...	...	...	...	..
Blacksmiths	...	...	2	1	3
Shoemakers	...	...	1	...	1
					55

REVENUE AND EXPENDITURE, 1913-14.

Head.	Morne Rouge North & South.	Westerhall.	Calivigny.	St. Cyr.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Land Officer's salary	...	...	...	...	120 0 0
„ „ forage allowance ...	...	...	...	...	45 0 0
Rangers' salaries ...	21 0 0	30 0 0	...	...	51 0 0
Roads	66 14 3	126 5 7	30 16 8	...	223 16 6
Survey expenses ...	7 1 4	3 0	16 2 7	61 15 6	85 2 5
Sugar Factory Morne Rouge North ...	1 0 0	...	...	...	1 0 0
Rest houses, etc. ...	...	3 8	...	...	3 8
Experiment plots ...	2 15 10	3 6	...	...	2 19 4
Wells, etc.	3 2	...	...	...	3 2
Incidentals (advertising, etc.)	6 2	...	4	...	6 6
Prize Holdings ...	...	...	...	...	...
Fencing	1 11 8	...	...	...	1 11 8
Drainage of swamps	15 10	...	...	...	15 10
Total	101 8 3	156 15 9	46 19 7	61 15 6	531 19 1

RECEIPTS APRIL 1, 1913, TO MARCH 31, 1914.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Westerhall	122 9 5	35 14 8	10 5 9	168 9 10
Morne Rouge North	7 8 1	10 0	3 15 4	11 13 5
Morne Rouge South	10 18 7	...	7 0 1	17 18 8
Calivigny	27 3 8	...	...	27 3 8
Total	167 19 9	36 4 8	21 1 2	225 5 7
Sale of Articles from Expt. Plots				12 11 1
Rebate on freight...				1 3 11
Grand Total				239 0 7

FOREST RESERVES.

Work Done on the Reserves.

The cultivations throughout the reserves were given attention throughout the year. All the plots were cleaned twice, and the camphor and rubber plants in one section received a light forking. The disease mentioned as having shown itself during the past year was again noticed, although to a less extent.

The boundary lines around the reserves were twice cleaned, and kept in good condition.

Minor repairs were effected to the hut at Mt. Lebanon. No additions were made to the reserves during this year.

The rangers, two in number, again performed good work in keeping off squatters and wood cutters.

(Sgd.) WALTER BERTRAND,
Land Officer.

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